This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Acute myelogenous leukemia (AML)	MicroRNA-196b (miR-196b); miR-21	<p>Patient sample, mouse and <i>in vitro</i> studies suggest inhibiting miR-196b and miR-21 could help treat <i>homeobox A9</i> (<i>HOXA9</i>)-driven AML. Translocations that increase the expression of <i>HOXA9</i> drive a subset of AML cases with poor prognosis. In samples from patients with AML, <i>HOXA9</i>, <i>miR-196</i> and <i>miR-21</i> were coordinately upregulated. In a human leukemia cell line, <i>HOXA9</i> was bound to the promoter of <i>miR-196</i> and <i>miR-21</i>. In bone marrow cells from <i>Hoxa9</i> knockout mice, miR-196b and miR-21 levels were lower than those in cells from wild-type mice. In a mouse model of <i>Hoxa9</i>-dependent AML, injection of antagomirs targeting miR-196b or miR-21 decreased leukemia-initiating activity and lethality compared with injection of control antagomirs. Next steps could include testing the antagomirs in clinical human AML isolates.</p> <p>SciBX 7(4); doi:10.1038/scibx.2014.110 Published online Jan. 30, 2014</p>	Patent and licensing status undisclosed	<p>Velu, C.S. <i>et al. J. Clin. Invest.</i>; published online Dec. 16, 2013; doi:10.1172/JCI66005</p> <p>Contact: H. Leighton Grimes, Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio e-mail: lee.grimes@cchmc.org</p>